

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SIEMENS MEDICAL SOLUTIONS USA, INC.,)	
)	
)	
Plaintiff,)	
)	C.A. No. 07-190 (SLR)
v.)	
)	
SAINT-GOBAIN CERAMICS & PLASTICS, INC.,)	REDACTED
)	PUBLIC VERSION
)	
Defendant.)	

**PLAINTIFF'S REPLY BRIEF IN SUPPORT OF
ITS MOTION FOR PRELIMINARY INJUNCTION**

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Despite the length of its opposition brief, Saint-Gobain does little to counsel against the entry of a preliminary injunction in this case. Indeed, the most noteworthy thing about Saint-Gobain's brief is the list of things that Saint-Gobain does not dispute:

- Saint-Gobain does not contest that the measurements of Saint-Gobain's crystal properties provided by Siemens in support of this motion are accurate;
- Saint-Gobain does not contest that adding 5 or 10% of yttrium has little to no impact on what its own affiant, Michael Mayhugh, [REDACTED]
[REDACTED]¹
- Saint-Gobain does not contest the prior admissions of its own employees – and even its own expert Dr. McClellan – that [REDACTED]
[REDACTED] and that five different Saint-Gobain executives signed off on an internal Saint-Gobain memo describing LYSO technology as [REDACTED]
- Saint-Gobain does not contest that the '080 patent asserted by Siemens is valid and enforceable;
- Saint-Gobain does not contest that it was aware of the '080 patent when it made the infringing LYSO crystals;
- Saint-Gobain does not contest that it specifically designed these crystals for use in PET scanners (*i.e.*, a gamma ray detector) by Philips and others;
- Saint-Gobain does not contest that its sales of infringing crystals are not limited to Philips alone – Saint-Gobain has sold them to other PET scanner manufacturers, including [REDACTED] and admits that those efforts continue today;

¹ For all of its efforts to distinguish its low-Y (5% or 10% yttrium) formulation as being something other than a LSO crystal with a "dash" of yttrium to avoid infringement, discovery has shown that [REDACTED]
[REDACTED] (See SGCP00018526). As Saint-Gobain's own affiants confirm, [REDACTED]
[REDACTED]
See SGCP001764 [REDACTED]
[REDACTED] see also Deposition of Michael Mayhugh, 17:17 - 19:24, 27:24 - 31:8; 36:7 - 37:18; 40:17 - 41:8).

- Saint-Gobain does not contest that its use of infringing LYSO crystals has allowed [REDACTED] or that by doing so, Siemens has lost unquantifiable business, a reduction in its industry reputation as the technological leader, and other irreparable harm.
- Saint-Gobain does not contend that any argument made during prosecution of the '080 patent should be the basis for prosecution history estoppel – rather, it limits its prosecution history estoppel argument to two claim *amendments* and then fails to offer any evidence that the accused 10% yttrium formulation is within the scope of the territory surrendered, was “foreseeable” at the time, or that the amendments were not “tangential” to the infringing crystals.

In fact, after wading through the history of the Hall of Mirrors at Versailles and Saint-Gobain’s failed initial efforts to compete with Siemens’s LSO crystals, when one finally gets to Saint-Gobain’s arguments opposing a preliminary injunction, they are superficial and unpersuasive.

First, Saint-Gobain relies heavily on two patents that were issued to LYSO crystal formulations and asks the Court to “presume” non-infringement in Saint-Gobain’s favor as a result – a sure path to error which ignores settled law that the issuance of a subsequent patent raises no presumption whatsoever with respect to infringement, nor with respect to the doctrine of equivalents.

Second, Saint-Gobain suggests in passing that two claim amendments preclude Siemens from asserting the doctrine of equivalents at all – without ever even discussing whether the equivalent LYSO crystals were within the territory surrendered by the amendments, a threshold factor Saint-Gobain cannot meet. In addition, Saint-Gobain never argues that LYSO crystals were foreseeable when these amendments were made – another prosecution history estoppel prerequisite – instead. Saint-Gobain’s repeated references to the subsequent issuance of two LYSO patents actually counsels in Siemens’ favor on this issue. Nor does Saint-Gobain contend, much less rebut, that the amendments were anything other than tangential to the

infringing equivalent. In short, Saint-Gobain addresses none of the points needed to establish prosecution history estoppel.

Third, although Saint-Gobain contends, that its LYSO crystals are “similar, but different” from the patented LSO crystals, at no point does it undertake either a “function-way-result” or a “known interchangeability” test. At the same time, Saint-Gobain continues to ignore the key question: not *whether there is* yttrium in its crystal, but whether that yttrium – *critically, in the low 5% to 10% substitution level used by Saint-Gobain* – has any substantial effect on the crystal’s use as a scintillator. Unable to point to any difference in what its affiant admits are the scintillator performance properties that customers (b) (5) (Mayhugh Dep. at 38:15 - 39:11), Saint-Gobain only points to manufacturing differences that have nothing to do with how these crystals behave in an X-ray or gamma ray detector. Nor does, Saint-Gobain explain how any of the allegedly different properties, particularly at the miniscule levels of difference Saint-Gobain alleges, change how the scintillators behave in the context of the claimed ray detector. In fact, Saint-Gobain concedes that all of the *scintillation* properties of these crystals are effectively the same.

Fourth, Saint-Gobain’s arguments on irreparable harm actually confirm that Siemens is and will continue to be harmed absent entry of a preliminary injunction, and that that harm is immeasurable and unable to be compensated with mere monetary damages. Specifically, Saint-Gobain admits that its sale of infringing LYSO crystals has allowed it to gain a “foothold” in the market for PET scintillation crystals (Opp. at 37), elevated the reputation of an otherwise technological laggard in this field (Philips), and because of this Philips has become a stronger

PET competitor to Siemens. through use of the infringing crystal². And although Saint-Gobain tries to portend impending doom from a preliminary injunction, discovery has since revealed the accused products to be a minor piece of Saint-Gobain's business – further counseling in favor of injunctive relief.

Lastly, Saint-Gobain improperly argues that the use of the infringing crystals in a medical device immunizes it from preliminary injunctive relief on public interest grounds. While Saint-Gobain extols the virtues of PET scanning generally, it fails to point to a single actual performance advantage or which consumer benefit from using Saint-Gobain's LYSO crystals. Instead, Saint-Gobain only provides this Court is conclusory attorney argument that "several [unnamed and apparently unwilling-to-sign-an-affidavit] professionals in the industry have shown a preference for the LYSO crystal over the LSO crystal scintillators."³ Not only is that statement unsupported by a single witness, but it is belied by document after document from Saint-Gobain's own files showing a customer preference towards the performance of the patented LSO crystal and an effort to try to skirt the '080 patent by using as low an yttrium percentage as possible to align the properties of crystals. Indeed, those same files show that Saint-Gobain was adding yttrium to an LSO crystal largely, if not entirely, to give it a fig-leaf

² While inducement is a separate act from contributory infringement (and Saint-Gobain does not contest that its crystals have no substantial non-infringing use), Saint-Gobain nonetheless demonstrates a misunderstanding of the law of inducement when it tries to suggest that its collaboration with Philips and its offers to sell LYSO crystals to others for use in infringing PET scanners would not be inducement.

³ Saint-Gobain cites to the declaration of Dr. McClellan for this statement about the supposed preferences of industry customers; yet Dr. McClellan made no such statement anywhere in his declaration. Indeed, he confirmed during his deposition that he has no experience with the actual application of any scintillator material to PET scanning applications. (McClellan Dep. at 190:8-14; 197:22 - 198:3; 197:5-12).

defense to an allegation that it willfully infringed the '080 patent. Again, those machinations counsel in favor of a preliminary injunction, not against one.

I. PRELIMINARY STATEMENT REGARDING SAINT-GOBAIN'S DISCOVERY

Another issue that requires the Court's attention is Saint-Gobain's repeated failures to abide by the set discovery schedule in this case. Indeed, Saint-Gobain has produced thousands of relevant documents months late and after both of its affiants were deposed. Indeed, even today, the due date for this brief, Saint-Gobain is still delivering Siemens documents that should have been provided months ago.⁴

The Court will recall that the parties initially agreed to an expedited exchange of information with documents and written discovery responses being provided on August 17. As that deadline approach, Saint-Gobain sought additional time. Siemens agreed on the condition that Saint-Gobain would provide information on a "rolling" basis and that all documents and discovery responses would be provided by August 31. Saint-Gobain accepted those conditions. Siemens produced documents on August 17 and then concluded its production on August 31.⁵

Saint-Gobain, on the other hand, produced no documents and provided no discovery responses during the agreed-upon "rolling" window. Instead, on August 31, it produced 1,131 pages of documents. Then, it produced another 10,308 pages from September 17 through October 9. While those documents were late, that delay now seems minor compared to

⁴ Today alone, Saing-Gobain delivered over 25,000 pages of documents. The chronology underlying Saint-Gobain's discovery failings are set forth in detail in the attached Brahma Declaration, as are all exhibits cited herein.

⁵ With the exception of an additional 112 pages that were inadvertently omitted from the August 31st production due to a photocopying error (and provided a September 7th), Siemens' production was complete on August 31st as agreed, well in advance of the depositions of Siemens' affiants.

what has unfolded over the past two weeks. Indeed, as of October 17 when Saint-Gobain filed its opposition brief and two full months after the original deadline, it is now apparent that Siemens had not received even 20% of the responsive documents that it should have been given two months before. And the events related to the production of the remaining documents merit particular attention and compel relief.

Due to the extensions sought by Saint-Gobain, Siemens had just one week after the receipt of Saint-Gobain's brief and affidavits to prepare for the deposition of Saint-Gobain's only fact witness, Mr. Mayhugh. Siemens prepared for that deposition based on the affidavit, brief, and the 11,439 pages produced by Saint-Gobain as of that date. Although the parties had been in regular contact about deposition scheduling (and had seen each other in person at two prior depositions, at no point prior to the Mayhugh deposition did Saint-Gobain notify Siemens that it had not produced all of its responsive documents, including many directly involving Mr. Mayhugh. On October 23, Siemens' counsel traveled to New York and took the Mayhugh deposition the next day. During the deposition, Siemens' counsel received an email notification from his colleagues in Washington, D.C. that some 4,500 more pages (*including documents that refute Saint-Gobain's affidavits and* [REDACTED]) were delivered to Siemens' counsel's *Washington, D.C. office* on the same morning the Mayhugh deposition was taking place *in New York*.⁶ When Saint-Gobain ended the deposition before the 7-hour limit

⁶ Although Mr. Ohman originally suggested that perhaps those materials were the remnants of their French production and did not involve Mr. Mayhugh, the handful that Siemens counsel was able to have faxed from colleagues in Washington based on a skim of the materials and use in the deposition revealed otherwise and were admitted by Mayhugh to be memos and emails prepared by him. Notably, Saint-Gobain has not responded to Siemens' interrogatory requiring identification of the custodian of each range of production documents. (Plaintiff's Interrogatory No. 14; served July 27, 2007.)

had elapsed (due to the witnesses' travel plans), Siemens' counsel expressed its displeasure that and having obviously relevant Mayhugh documents produced not only simultaneously with his deposition, but in another city. At no point did anyone reveal that this was but a trickle of the Saint-Gobain documents to come. Apparently, fifty minutes *before* the conclusion of that very deposition, Saint-Gobain packed up and shipped another approximately 12,500 pages of documents from their New York office to Siemens' counsel, which arrived in Washington *the day after* the Mayhugh deposition. No notice was given to either of the Siemens lawyers sitting in their office at the time of shipment. Upon return to Washington, it became apparent that Saint-Gobain had more than doubled its production (from 11,439 to 28,357 pages) during the time that the Mayhugh deposition was taking place.

As Siemens prepared to depose Saint-Gobain's expert witness on November 2, Saint-Gobain again surprised Siemens with another 13,000+ pages on October 31 – without any justification or explanation. Having had enough – and being unable to review those materials and re-depose Saint-Gobain's witnesses in advance of the hearing, much less its briefing deadline less than a week away, Siemens contacted Saint-Gobain counsel to (1) ask that Saint-Gobain voluntarily withdraw the Mayhugh declaration to temporarily resolve this issue; and (2) determine if there were any more documents still to come. On the phone on October 31, Saint-Gobain's counsel indicated that few, if any, documents were still to be produced. On November 1, Saint-Gobain refused to withdraw the Mayhugh affidavit and did not warn that any further documents would be received. However, the next day, while Saint-Gobain's counsel was again face-to-face with Siemens' counsel, in Santa Fe for the McClellan deposition, a different Saint-Gobain lawyer called Siemens counsel's Washington, D.C. office to *leave a message*

indicating that *eleven more boxes* of documents were being produced for Monday delivery – so that they would arrive today, the day Siemens’ reply brief was due.

This is not how discovery, much less expedited discovery in a preliminary injunction context, is supposed to work. Saint-Gobain had Siemens’ brief and documents long in advance of its depositions and with plenty of time to prepare. Saint-Gobain has now put Siemens to a Hobson’s choice – seek to delay the hearing, or scramble through boxes of late-produced discovery instead of focusing on depositions, its reply brief, and hearing preparation. Both, of course, benefit Saint-Gobain, revealing the significant prejudice that this sort of conduct causes the plaintiff in a preliminary injunction context. As such, the Court should either decline to consider the Mayhugh affidavit (as Siemens was not afforded a proper opportunity to cross-examine Mayhugh), allow an uncontested additional submission of Saint-Gobain’s own documents supporting the preliminary injunction, or temporarily enjoin Saint-Gobain until Saint-Gobain’s belated production can be reviewed, its witnesses can be re-deposed, and complete briefing and argument can occur on a preliminary injunction.

II. ARGUMENT

Siemens’ likelihood of success on the merits comes down to the fact question of whether the use of a 90% Lu / 10% Y LYSO crystal in a PET scanner is equivalent to the use of the ‘080 patent’s LSO crystal. On that point, Saint-Gobain does not contest Siemens’ test data [REDACTED] the accused LYSO and LSO crystals, nor does it address either of the two established tests for equivalence. Indeed, Saint-Gobain’s own documents reviewed to date – and likely many more only belatedly produced – admit that the accused low-Y LYSO crystals are [REDACTED]

Instead, Saint-Gobain's argument is premised on Siemens being essentially precluded as a matter of law from asserting the doctrine of equivalents on two grounds: (a) the existence of an LYSO patent; and (b) two amendments made during the prosecution of the '080 patent. Both of Saint-Gobain's arguments are incorrect as a matter of law and Saint-Gobain likewise fails to provide the necessary factual support to prevail, under even its view of the law.

Given that those facts result in a strong likelihood of success on the merits, Saint-Gobain tries to claim hardship will result from preliminary injunction – a claim belied by its own admissions and unpersuasive where the hardship complained of is simply the inability to infringe the admittedly-valid patent in question. Lastly, Saint-Gobain tries to muster a “public interest” defense without a single piece of evidence on the subject and only a sweeping argument that would effectively render all medical, pharmaceutical, or other health care products immune from injunctive relief. Therefore, as set forth more fully below, Siemens has satisfied the preliminary injunction standard and its motion should be granted.

A. Siemens Has A Strong Likelihood of Success on the Merits.

1. Saint-Gobain Is Not Entitled To Any “Presumption” That Its LYSO Crystals Do Not Infringe Under The Doctrine Of Equivalents.

Saint-Gobain invites error when it tells the Court that “Saint-Gobain’s patented LYSO crystal is entitled to be *presumed* nonobvious and therefore not an insubstantial, equivalent” to the claimed LSO scintillator crystals. (Opp. at 25.) Longstanding Federal Circuit precedent says exactly the opposite: “The fact of separate patentability presents *no legal or evidentiary presumption of noninfringement*.” *Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1582 (Fed. Cir. 1996) (emphasis added); *Atlas Powder Co. v. E.I. duPont de Nemours & Co.*, 750 F.2d 1569, 1580 (Fed. Cir. 1984) (finding that “the grant of a patent to an accused infringer” does not “constitut[e] a prima facie determination of non-equivalence”). On the

specific issue of the doctrine of equivalents specifically, the Federal Circuit has been equally clear: “[I]t is well established that separate patentability does not avoid equivalency as a matter of law.” *Fiskars, Inc. v. Hunt Mfg. Co.*, 221 F.3d 1318, 1324 (Fed. Cir. 2000) (citing *Atlas Powder Co.*, 750 F.2d at 1580).

Not only is Saint-Gobain’s presumption flawed, but courts have properly excluded the very evidence that Saint-Gobain relies so heavily on – namely, that its infringing LYSO crystals are also within the scope of the McClellan or Chai patent. *Id.* Nor does the issuance of these other patents outweigh the actual evidence from both parties’ files that Saint-Gobain’s LYSO crystals are equivalent to the ‘080 LSO scintillators. *See Hoechst Celanese Corp.*, 78 F.3d at 1582.

The only cases Saint-Gobain cites that supposedly support its position do not go nearly as far as Saint-Gobain suggests. In neither its 2007 *Festo* decision nor in *Hoganas* did the Federal Circuit create the presumption of non-infringement that Saint-Gobain now asks this Court to adopt. Indeed, a review of the *Hoganas* decision confirms just how different that situation was from the case at hand: the Federal Circuit emphasized that the *only* evidence supporting plaintiff’s claim of equivalence was an “incomplete and conclusory” post-deposition affidavit from its expert. *See Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 954 (Fed. Cir. 1993).⁷ In stark contrast, Siemens has presented not only its expert’s affidavit supported by extensive testing of Saint-Gobain’s LYSO crystals. In this case, the very same patents on LYSO

⁷ The *Zygo* case cited by Saint-Gobain also does not stand for such a presumption. In *Zygo Corp. v. Wyko Corp.*, before the cited discussion of the defendant’s patent, the Court had already found that the accused product contained no “substitute ‘alignment reticle,’” which was a necessary element of the asserted claim. 79 F.3d 1563, 1569 (Fed. Cir. 1996). Its subsequent statement about the defendant’s patent therefore had little impact on the Court’s decision, much less was it a determinative one as Saint-Gobain contends.

crystals that Saint-Gobain relies (and at least one related article by a named inventor of one of those patents) actually state that the supposedly-new LYSO crystals were designed to have the same LSO scintillation properties. Moreover, Siemens has presented statements from Saint-Gobain researchers that their goal in developing its LYSO crystal was to retain the properties of Siemens' LSO crystals while skirting the literal scope of the '080 patent.

To the extent subsequently-issued patents might be considered relevant to the issue of equivalence, they are hardly conclusive. *Hoechst Celanese*, 78 F.3d at 1582; *Atlas Powder*, 750 F.2d at 1580; *Fiskars*, 221 F.3d at 1324. Without any analysis of the patents, Saint-Gobain suggests that their mere existence creates a factual issue that precludes entry of a preliminary injunction. But, the standard here is not the summary judgment "mere scintilla" or anything else so charitable to Saint-Gobain. Saint-Gobain must make an actual showing on the effect of yttrium in an LYSO crystal and rebut Siemens' evidence – yet it cannot.

Siemens does not and has never contended that an LYSO crystal with 85%, 70%, 50% or even 30% yttrium – *the percentages tested and disclosed in the Chai patent* – is an equivalent to an LSO crystal. While Chai described his preferred embodiment of 30% to 80% yttrium different properties of those percentages from LSO, that is not the product at issue.. However, as noted in Siemens' opening brief and unrefuted by Saint-Gobain, the Chai and McClellan patents and other literature acknowledge that LYSO crystals with *only a 10% level* of yttrium substitution, the ones actually made and sold by Saint-Gobain are, in fact, equivalent to the patented LSO crystal. For example, the McClellan patent measured the properties of a 10% yttrium LYSO crystal and found that its light output "was as bright as LSO crystals;" the density "was only slightly lower [meaning: not as good]" than LSO; and the "peak emission wavelength" for both the 10% Y LYSO and the LSO crystal were both 420 nm. ('489 Patent at Col. 4, ll. 14-

22 & Table I.) While Saint-Gobain relies solely on generic comparisons to crystals with three to eight times the amount of yttrium, that does little to refute Siemens' argument.

2. Saint-Gobain's Half-Hearted Prosecution History Estoppel Argument Is Legally And Factually Wrong.

Saint-Gobain waits until page 32 of its brief to discuss what it calls the "threshold" question of "whether Siemens is even entitled to lay claim to a range of equivalents to the LSO crystal of the '080 Patent" because those claims were amended. Without much to say on the issue, Saint-Gobain goes only so far as to say that prosecution history estoppel "may" limit the scope of equivalents and devotes less than a page to this argument. (Opp. at 32.) Saint-Gobain's "to doubt is to deny" argument ignores the standard before this Court and should be rejected.

First of all, a proper analysis requires that the equivalent be shown to be within the surrendered territory of the amendment, a point Saint-Gobain completely ignores. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 737-38 (2002). Prosecution history estoppel only bars an argument if the alleged equivalent would have fallen within the claim's original scope but not its amended scope. *See, e.g., Primos, Inc. v. Hunter's Specialties, Inc.*, 451 F.3d 841, 849 (Fed. Cir. 2006). Tellingly, neither of the amendments cited by Saint-Gobain related in any way to the equivalents issue before the Court here.

The first cited amendment required that the recited crystal "scintillator" be "transparent." Saint-Gobain's reference to this limitation is, at best, specious. Saint-Gobain knows full well that its infringing LYSO crystals meet the "transparent" limitation *literally* (see McClellan Dep. at 133:13-15; Weber Aff. ¶ 35), and thus the accused LYSO crystals were never

in territory relinquished by amendment.⁸ See, e.g., *Primos*, 451 F.3d at 849 (no estoppel where addition of “length” limitation merely made express a limitation that was inherent in original claim and, therefore, did not narrow the scope of the claim); *Business Objects, S.A. v. Microstrategy, Inc.*, 393 F.3d 1366, 1375 - (Fed. Cir. 2005) (same).

The other amendment, which changed how the claimed LSO crystal’s composition was described (focusing on the actual composition of the end product rather than the composition of the melt used in its manufacture) also does not trigger prosecution history estoppel for two separate reasons. As Saint-Gobain admits, even if the LYSO crystals had fallen within subject matter surrendered when the amendment was made, an estoppel does not arise if “the alleged equivalent was ‘unforeseeable’ at the time of the narrowing amendment” or if “the rationale for the narrowing amendment had only a tangential relationship to the subject equivalent.” (Opp. at 4.)

Given its heavy (albeit misplaced) reliance on the LYSO patents in its brief, Saint-Gobain should recognize that it can’t have it both ways. By arguing that LYSO crystals were patentable in mid 1999, Saint-Gobain implicitly admits that accused LYSO crystals could not have a foreseen infringing equivalent in February 1989, when the claims of the ‘080 patent were amended. Indeed, Dr. McClellan explicitly agreed during his deposition: “I believe they were not foreseen [in 1990] and I believe that the patent office agreed”. (McClellan Dep. 116:6-

⁸ Indeed, the Patent Office itself observed that all of these scintillators are inherently “transparent” during the Chai/McClellan interference, so this amendment had no narrowing effect on the scope of the claim as a whole or the scintillator element in particular. (Patent Interference No. 105083 between Serial No. 9/506,160 and U.S. Patent No. 6,323,489 at p. 7 (“It would have been obvious that the scintillator recited by Party 1 was ‘transparent’ as recited by Party 2 because a scintillator which is not transparent to its scintillations is not useful.”))

8.) As such, that amendment cannot trigger prosecution history estoppel nor does it preclude Siemens from arguing that the type of low Y% LYSO crystals at issue here are equivalent to the claimed LSO scintillators.

In addition, if the amendment does not change whether the alleged equivalent falls within the scope of the claim, then the alleged equivalent is “tangential” to the amendment and prosecution history estoppel does not apply. *Primos*, 451 F.3d at 849. Nothing about the melt to-end product composition amendment is even alleged by Saint-Gobain to touch on the equivalent LYSO composition – it is not as if there was ever yttrium in the LSO composition melt, but none in the end product. Consequently, that amendment has no bearing on whether LYSO crystals are equivalent to LSO crystals and prosecution history estoppel does not apply.

3. Saint-Gobain Offers No Evidence To Dispute And Discovery Has Now Confirmed That Its LYSO Crystals Are Equivalent To LSO Crystals.

Tellingly, Saint-Gobain does not apply either the “function-way-result” test or the “known interchangeability” test to its equivalence analysis. Applying either exposes the fallacy of Saint-Gobain’s analysis. While its witnesses were clearly prepared to ape “similar, but different” throughout their depositions and declarations, that is pointless because if they were not, this Court would be analyzing literal infringement and not the doctrine of equivalents. What matters is whether any of the differences between Saint-Gobain’s LYSO and the claimed LSO crystals are “substantial.” If the differences do not matter, then the accused low Y% LYSO crystals are within the doctrine of equivalents and there is a substantial likelihood of success on Siemens’ infringement claim.

Saint-Gobain completely fails to rebut the evidence presented in Siemens’ motion – indeed, it does not Dispute Siemens’ measurements of the accused crystals and *its own expert, Dr. McClellan, has not tested a single Saint-Gobain crystal.* (McClellan Dep. 50:22 - 51:6.)

McClellan also admitted the obvious: that you cannot know the properties of a scintillator crystal unless you test it. (McClellan Decl. ¶ 18.) Fatally for Saint-Gobain's argument, neither McClellan nor Saint-Gobain have cited anything to this Court regarding how much the various properties differ between Saint-Gobain's accused LYSO crystals and the claimed LSO crystals.⁹

The only basis on which Saint-Gobain contends its LYSO crystals are different from LSO crystals has nothing to do with how these crystals behave as "scintillators" in a "gamma ray or X-ray detector." Instead, Saint-Gobain resorts to pointing out that there are different steps to manufacture an LYSO crystal versus an LSO crystal, such as melting point, defect ratio, etc. None of those are the test for equivalence and Saint-Gobain's studious efforts to avoid either the function-way-result or known interchangeability test is telling.

Also noteworthy is Saint-Gobain's failure to point to any of its own internal files – which although still being belatedly produced – reveal that Saint-Gobain and its customers know that LYSO is [REDACTED] (SGCP012090-91.) [REDACTED] (SGCP012574.) [REDACTED] (Pl. Ex. 10, SGCP001764-73.) In fact, just last week Saint-Gobain unveiled that LYSO's so-called *inventor* admits that it is nothing but a [REDACTED] (SGCP028468-69.) These documents come as no surprise given that all of the published literature contradicts Saint-Gobain's position and confirms that there are no substantial differences between LSO and Saint-Gobain's 10% yttrium LYSO. (See, e.g., Pl. Ex. 28, McClellan 000153-56 (article by Saint-Gobain scientist showing near identity for effective Z, refractive index, and peak emission spectrum); Pl. Ex. 32,

⁹ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

McClellan 00008-10 (article by D.W. Cooke and Kenneth McClellan stating that they have grown 10% Y LYSO and "it retains the desired optical and physical properties of LSO.")¹⁰

4. Saint-Gobain Cannot Avoid Liability By Claiming it was Asked to Make LYSO.

In an apparent attempt to avoid liability for inducing Philips's direct infringement of the '080 patent, Saint-Gobain appears to suggest that it was forced by its customers to make the LYSO crystals at issue. (Opp. at 24 n.10.) As an initial matter, in making this argument, Saint-Gobain proves all of the elements necessary to show contributory infringement and inducement. Saint-Gobain admits it knew of the '080 patent. In fact, in addition to mentioning the '080 patent in its own patent applications, Saint-Gobain obtained an opinion of counsel to analyze [REDACTED] on March 16, 2006.

(SGCP002151-91.) Notably, that opinion does not [REDACTED]

[REDACTED] (SGCP002176-77.) Saint-Gobain also admits that it knew its LYSO crystals were to be used in Philips' PET scanners (*i.e.*, gamma ray detectors) and specifically designed the them for that purpose. (Opp. at 24 n.10.) That is strong evidence that there are no substantial noninfringing uses of those crystals that

¹⁰ [REDACTED]

would make them a “staple article of commerce.” *See Mentor H/S, Inc. v. Med. Device Alliance, Inc.*, 244 F.3d, 1365, 1379-80 (Fed. Cir. 2001).. (affirming contributory infringement where “defendants’ manual states that [product] was ‘specifically manufactured for [the allegedly infringing use].’”). Nor does Saint-Gobain argue that its LYSO crystals are staple articles of commerce or identify any other actual use for them.

In addition to being legally irrelevant, Saint-Gobain’s argument that it was somehow compelled to make LYSO crystals for Philips is belied by Saint-Gobain’s own documents. Under section 271(b), inducement includes merely “aid[ing] another to infringe a patent.” *Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 411 (5th Cir. 1963). In fact, merely instructing a customer on how to use the LYSO crystals in an infringing way would be inducement. *See VLT Corp. v. Unitrode Corp.*, 130 F. Supp. 2d 178, 200 (D. Mass. 2001) (“In fact, it is a textbook violation of § 271(b) where . . . a defendant selling products capable of either innocent or infringing use provides through labels, advertising or other sales methods instructions and directions as to the infringing use.”). Saint-Gobain’s own documents and witnesses make clear that it did far more than that here. Saint-Gobain tested various levels of yttrium substitution for its LYSO crystals before deciding which crystals to offer its customers, and that decision was driven, at least in part by its comparison of the properties of those crystals to the patented LSO crystals and Saint-Gobain’s misguided estimation of what it could do to avoid the ‘080 patent.

B. Neither The Balance Of Hardships Nor Public Policy Weigh Against Granting Siemens A Preliminary Injunction.

Saint-Gobain does not contest that its infringing sales of LYSO crystals for use in Philips PET scanners has caused financial harm to Siemens. As the Federal Circuit has already noted, such economic harm alone can be sufficient harm to justify entering a preliminary

injunction. See *Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1382 (Fed. Cir. 2006) (entering preliminary injunction where patentee suffered harm in form of price erosion). The resulting loss of reputation and opportunities for future sales to customers who buy the infringing PET/CT scanners are precisely the types of irreparable harm that a preliminary injunction is meant to prevent. See *id.* at 1382-83 (finding irreparable harm in, among other things, the patentee's "loss of good will" and the fact that the patentee "has been forced to offer discounted rates and price concessions"). Instead of contesting these facts, Saint-Gobain offers nothing but the conclusory statement that "the availability of money damages will more than fairly compensate Siemens" for Saint-Gobain's continued infringement. Merely saying it does not make it so, and Saint-Gobain does not and cannot rebut Siemens' evidence or must offer evidence to back up its claim.

Saint-Gobain's second unsubstantiated "balance of hardships" argument is that a preliminary injunction will not stop Philips' sales of infringing LYSO-based PET scanners, supposedly because alternate, but tellingly unnamed, suppliers of LYSO may be out there, ready to supply Philips with infringing crystals at a moment's notice. (Opp. at 34.) Yet Saint-Gobain provides no evidence supporting this—no sales materials from this alternate source nor any testimony from Philips or the alleged alternative source. Instead, Saint-Gobain provides only a generic statement of its own executive suggesting that "there are other suppliers of scintillator crystals that could supply Philips with LYSO if Saint-Gobain were enjoined from doing so." (Mayhugh Decl. ¶ 21.) To try to bolster its argument, Saint-Gobain miscites the testimony of Siemens' expert, Dr. Weber, who pointed to Crystal Photonics as a source of LYSO crystals of a *different* composition and, even then, only as a supplier for research purposes, not for

commercial use.¹¹ Saint-Gobain's claim that it needed to "invest[] a large amount of research and development money into growing and selling LYSO scintillators" (Opp. at 36), makes it highly unlikely that some unnamed competitor will fill the void once Saint-Gobain is enjoined.

Nor would Saint-Gobain's argument – if factually true – prevent a preliminary injunction in any event. In *Pfizer, Inc. v. Teva Pharmaceuticals, USA, Inc.*, 429 F.3d 1364 (Fed. Cir. 2005), the Federal Circuit affirmed a preliminary injunction over defendant's argument that the plaintiff wasn't irreparably harmed, in part because there were other infringers against whom plaintiff had not filed suit. Even where two other competitors truly existed, the Court held that that fact "does not negate irreparable harm. A patentee does not have to sue all infringers at once. Picking off one infringer at a time is not inconsistent with being irreparably harmed. Neither is first targeting infringers whose sales dwarf the sales of other infringers." *Id.* at 1381. Similarly, in *Polymer Technologies, Inc. v. Bridwell*, 103 F.3d 970 (Fed. Cir. 1996), the Federal Circuit reversed and remanded a district court that based its denial of a preliminary injunction on the very same argument Saint-Gobain makes here. *Id.* at 976 ("district court erred in its implication that, because [plaintiff] had not brought suit against its other competitors, it was not irreparably harmed.") The Court made clear that Saint-Gobain's argument could have merit "only when it indicates unreasonable delay in bringing suit, willingness to accept royalty-type damages in lieu of market exclusivity, or indifference in enforcing one's patent." *Id.* Where, like here, the defendant offered no evidence of that, denial of the preliminary injunction would be improper.

¹¹ Dr. Weber also noted that the only other source of LYSO crystals he was aware of was a now-defunct Scottish company called Photonic Materials, against whom Siemens successfully obtained an injunction in Scottish court based on the '080 patent (Weber Dep. 107:5-16.)

Similarly, Saint-Gobain's tale of "devastating" consequences from a preliminary injunction does not pass the reality test. Saint-Gobain boasted to this Court that: it is part of a "storied French concern;" "together with its affiliates and subsidiaries ... is today either the European or global leader in each of its major businesses;" "is a worldwide leader in the manufacture and development of ... crystals;" and has "been involved in tailoring scintillators to produce radiation detectors suitable for use in PET scanners" since "the mid-1970's" (Mayhugh Decl. ¶¶ 4-7.) Moreover, Saint-Gobain admits that it wishes to pursue non-infringing $\text{LaBr}_3\text{:Ce}$ scintillators, which it contends "seemed initially to offer considerably greater promise" than the infringing LYSO crystals it is now selling (Opp. at 12). Saint-Gobain also ignores that the factory in which Saint-Gobain now makes its LYSO was converted from a BGO factory and no evidence has been offered that it could not be converted back.

Given Saint-Gobain's rich history, evident economic staying power, and well-developed research program into a non-infringing alternative scintillator, its "Chicken Little" prediction is not credible. In reality, Mr. Mayhugh admitted [REDACTED]

[REDACTED] (Mayhugh Dep. at 288:19-292:13.)

On the flip side, Saint-Gobain admits that this infringing product was the only way it could get a foothold in a market that is technologically dominated by Siemens. Saint-Gobain's efforts to sell its own lanthanum bromide scintillator crystals for PET applications were met with indifference by potential customers. (Opp. at 14) Denying an injunction here would be tantamount to condoning patent infringement as a means to overcome having an inferior product.

These facts are distinguishable from those described in the Federal Circuit's unpublished, non-precedential *Ethicon* decision that Saint-Gobain improperly relies upon.

Ethicon, Inc. v. United States Surgical Corp., 1992 U.S. App. LEXIS 8823 (Fed. Cir. 1992). Here, there is evidence that Saint-Gobain's own efforts to introduce the new lanthanum-bromide crystal were rebuffed by Siemens' two competitors in the PET scanner market. (Opp. at 14.) And, as noted above, Saint-Gobain will hardly be "devastated" by an injunction to stop sales of a product it only reluctantly introduced anyway. Indeed, Saint-Gobain notes that it only began offering this product "scarcely more than a year before this action began" (*Id.* at 34).

Saint-Gobain's sole public policy argument for why Siemens should not be granted a preliminary injunction is that a preliminary injunction should never be entered to keep a "medical device" (here, Philips's Gemini TF PET/CT scanner) off the market. (*Id.*) But, that argument rests on a faulty, oft-rejected premise – that it serves the public interest to allow infringing medical devices on the market. *See, e.g., Critikon, Inc. v. Becton Dickinson Vascular Access, Inc.*, No. Civ. A. 93-108, 1193 WL 330532, at *11 (D. Del. July 16, 1993) (finding public interest favored entry of preliminary injunction to stop sales of safety catheter); *United States Surgical Corp. v. Origin Medsystems, Inc.*, No. C-92-1982, 1993 WL 379579, at *7 (N.D. Cal., Jan. 12, 1993), *aff'd*, 16 F.3d 420 (Fed. Cir. 1993) (finding preliminary injunction served public interest by encouraging innovation in medical devices, particularly where patentee's commercialization of patented product was imminent); *A & L Tech. v. Resound Corp.*, (N.D. Cal. 1995) (entering preliminary injunction where "the Court cannot find a public interest in the uninterrupted availability of ReSound's infringing devices sufficiently severe to outweigh the strong public interest in protecting Plaintiff's patent rights").

In the limited cases where courts have opted not to preliminarily enjoin sales of a medical device, special factors have supported that decision and Saint-Gobain has offered none here. For example, Saint-Gobain cites the *Cordis* and *Datascope* decisions as supposed

examples of cases in which a preliminary injunction was denied based, in part, on evidence that “professionals preferred the accused product over the patented product.” (Opp. at 35.) As an initial matter, neither of those cases relied solely on physician preferences as a basis for finding a public interest in denying a preliminary injunction, but Saint-Gobain ignores that it has no evidence of any physician preference for the infringing Philips PET/CT scanner with Saint-Gobain’s LYSO crystals. While Saint-Gobain discusses the virtues of PET scanning in general as a medical imaging tool, Saint-Gobain does not mention, much less prove the existence of, a single performance advantage that Philips LYSO-based scanner offers over Siemens’ existing PET/CT scanners. To justify denying a preliminary injunction, Saint-Gobain must present evidence, not mere innuendo, to show a countervailing public interest that would warrant ignoring the public policy that underpins the entire patent system.

III. CONCLUSION

For the foregoing reasons, Siemens respectfully requests that Saint-Gobain be preliminarily enjoined from continuing to infringe the '080 patent, including by making, using, selling, offering for sale or importing its infringing LYSO crystals for use in PET scanners.

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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on November 12, 2007, I electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

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